

Identities

Quotient Identities

$$\textcircled{*} \tan x = \frac{\sin x}{\cos x}$$

$$\frac{o/h/h}{a/n-y}$$

$$\cot x = \frac{\cos x}{\sin x}$$

Reciprocal Identities

$$\textcircled{*} \sec x = \frac{1}{\cos x}$$

$$\sin x = \frac{1}{\csc x}$$

$$\textcircled{*} \csc x = \frac{1}{\sin x}$$

$$\cos x = \frac{1}{\sec x}$$

$$\textcircled{*} \cot x = \frac{1}{\tan x}$$

$$\tan x = \frac{1}{\cot x}$$

$$y = \cot x \cdot \sec x = \csc x$$

↑ Quotient

$$\frac{\cos x}{\sin x} \cdot \sec x$$

↑ Reciprocal

$$= \frac{\cancel{\cos x}}{\sin x} \cdot \frac{1}{\cancel{\cos x}}$$

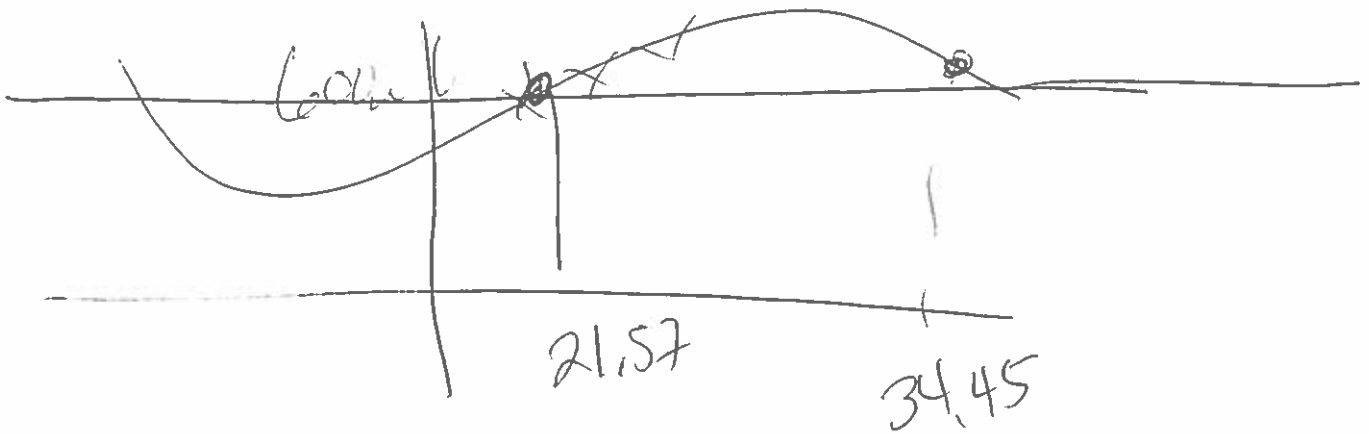
↑ Algebra

$$= \frac{1}{\sin x}$$

↑ Reciprocal

$$= \csc x$$

Sinreg



$$\begin{array}{l} \text{Perid} \\ \left[\begin{array}{l} 21.57 + n \quad (60) \\ 34.45 + n \quad (60) \end{array} \right. \end{array}$$

GROUP NAME: Team Chem

Date: 4/17

Student Names (First and Last)

Speaker/Presenter: Benjamin Infano

Independent Variable (x-axis): Miles of water

Writer/Prep: Benjamin Infano

Dependent Variable (y-axis): Quantity Sold

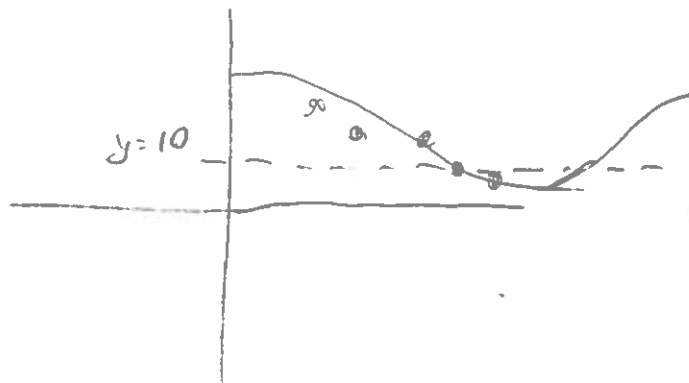
Leader/Collaborator: El Amponzo

Conclusion (in words):

Supporting Work:

x	y
51	20
52	27
53	8
54	8

$$y = 9.46 \sin(0.07x - 0.82) + 19.1$$



$$(45, 10) \quad (52, 10)$$

GROUP NAME: Math lovers
 Date: _____
 Independent Variable (x-axis): Price of candy
 Dependent Variable (y-axis): # of Sale

Student Names (First and Last)
 Speaker/Presenter: Faith
 Writer/Prep: Clifford
 Leader/Collaborator: Nora

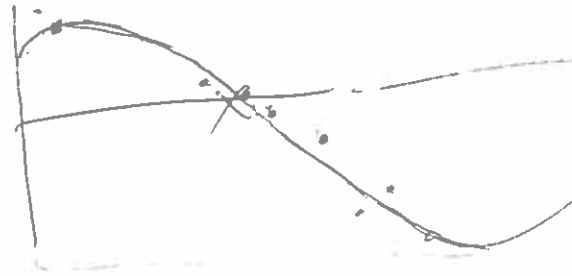
Conclusion (in words):

Supporting Work:

X	Y
20	100
50	80
60	75
65	70
75	60
80	50
90	40
100	30

$y = a + bx + c(x^2) + d(x^3)$
 $a = 45.61158537$
 $b = .037269022$
 $c = .4656002171$
 $d = 55.79439762$
 295611
 $2 - 3.23$

$PS = -c/b = -11.85$
 $PS \times 1 = 55.79$



GROUP NAME:

Student Names (First and Last)

Date: 17 April 2014

Speaker/Presenter: _____

Independent Variable (x-axis): mph

Writer/Prep: _____

Dependant Variable (y-axis): mpg

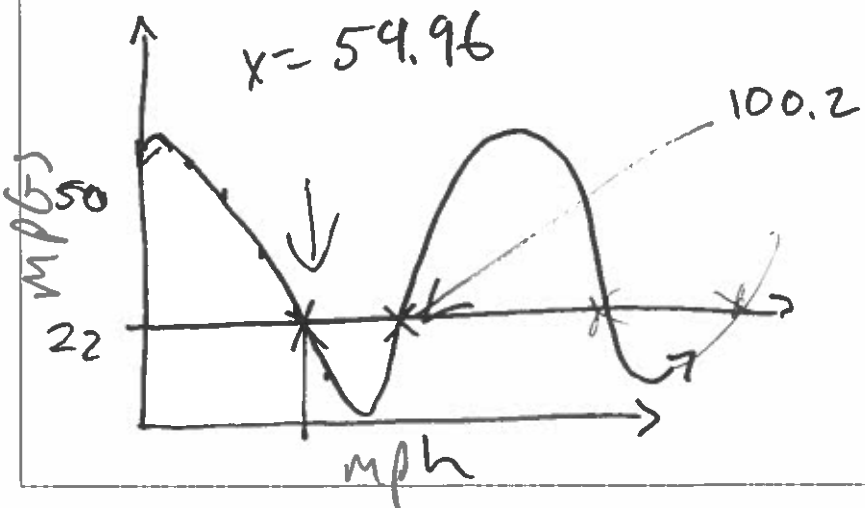
Leader/Collaborator: Byron⁻¹

Conclusion (in words):
 In Sine Reg $\left\{ \begin{array}{l} \text{If you travel } 59.96 \text{ mph you get } 22 \text{ mpg} \\ \text{If you travel } 100.2 \text{ mph you also get } 22 \text{ mpg} \end{array} \right.$

Supporting Work:

X	Y
25	30
45	28
50	25
65	21
70	19

Sin reg
 $\sin(L1, L2, 140)$
 $a = 6.217$
 $B = .06$
 $C = -.176$
 $D = 24.09$



$59.96 + n(140)$
 $100.2 + n(140)$

GROUP NAME: Precalc Invaders

Date: 7/17/14

Student Names (First and Last)

Speaker/Presenter: Dorian Thomas

Writer/Prep: Micah Continisio

Independent Variable (x-axis): years

Leader/Collaborator: Zoltan Thomas

Dependent Variable (y-axis): US population

Conclusion (in words):

In 2013 the population of the US is 312 million.

for a 17% increase

Supporting Work:

y-axis

x	y
2000	281
2007	300
2010	312
2013	312

$b = 2\pi/b$

$y = 13$



$A = 0.01$

2013 population = 312 million

2010 population = 300 million

$f(x) = A \sin(B(x - C)) + D$
 $x = 15.708$

GROUP NAME:

Student Names (First and Last)

Date: _____

Speaker/Presenter: _____

Independent Variable (x-axis): _____

Writer/Prep: LOUIE KIERKREIT

Dependant Variable (y-axis): _____

Leader/Collaborator: _____

Conclusion (in words):

Supporting Work:

$$a = 25.66$$

$$b = 0.03$$

$$c = -2.45$$

$$d = 51.40$$

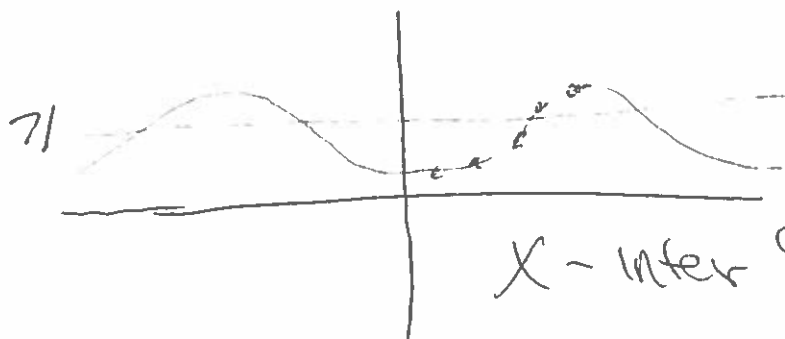
$$\text{Period} = \frac{2\pi}{B} = 209.44$$

$$\text{amp} = 25.66$$

$$\text{P.S.} = -\frac{c}{B} = 81.67$$

$$\text{raised} = 51.40$$

x	y
24	24
48	35
72	47
96	67
120	78



$$99 + n \cdot 209.44$$

$$146 + n \cdot 209.44$$

<p>GROUP NAME: _____ Date: <u>4/17/14</u> <u>This Group, Best Group</u></p>	<p>Student Names (First and Last) _____ Speaker/Presenter: _____</p>
<p>Independent Variable (x-axis): <u>Year</u> Dependant Variable (y-axis): <u># of Drunk Driving Fatalities</u></p>	<p>Writer/Prep: <u>Billy Raftery</u> Leader/Collaborator: _____</p>

Conclusion (in words): _____

Supporting Work:

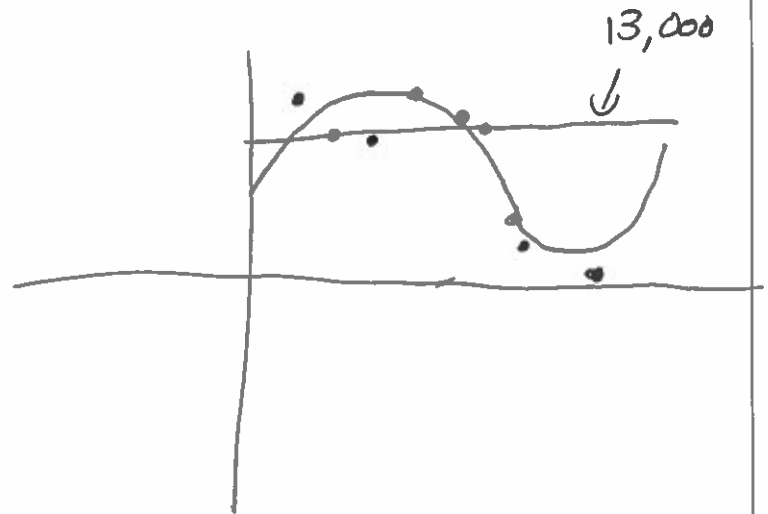
Sine Regression
 $a = 1603.419082$

$b = .541...$

$c = 3.029...$

$d = 12210.188...$

Period = 11.601



13,000 deaths

At year = 2002.4968

At year = 2006.3957

GROUP NAME: We love Math

Date: 4/17/14

Student Names (First and Last)

Speaker/Presenter: Craig Savets

Writer/Prep: Zachary Labbanca

Leader/Collaborator: Li-Yang Lin

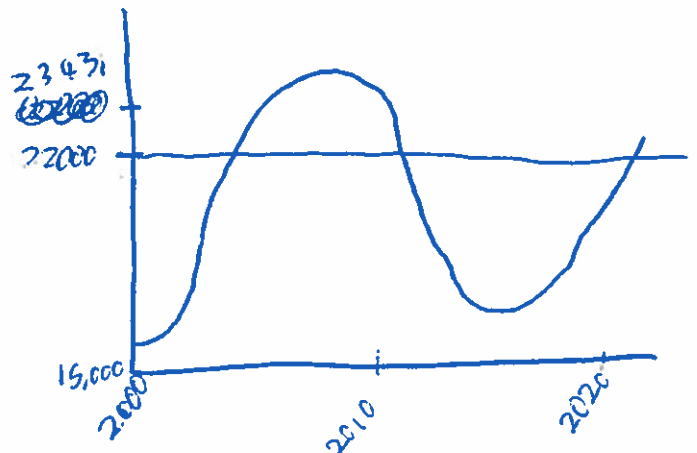
Independent Variable (x-axis): Time (Year)

Dependant Variable (y-axis): GDP per Capita

Conclusion (in words): The GDP per capita of Greece is \$22,000 at 2011.24 + n(15.99) and 2005.12 + n(15.99)

Supporting Work:

X	Y
2009	21210
2006	21620
2007	22721
2008	23431
2009	23289
2010	22467
2011	21310
2012	19907
2013	18578



$$y = 3576.6 \sin(0.392 \times (x - 1.64)) + 19698.67$$

Period = 15.99

Intersects 22,000 USD at 2011.24 and 2005.12

$$2011.24 + n(15.99)$$

$$2005.12 + n(15.99)$$